

### **REMARKS**

Claims 1-20 are currently pending in the application. Claims 1-3, 11, and 12 have been rejected under 35 USC § 102(b) or, alternatively, under 35 USC § 102(e). Claims 13 and 14 are rejected under 35 U.S.C. § 103(a). Claim 1 and claims 11-14 are further rejected under 35 U.S.C. § 112, first and second paragraphs. Claims 4-10 and 15-20 are rejected under 35 U.S.C. § 112, first paragraph. Claims 4-6, 9, and 15-20 have also been rejected for double patenting. Claims 1-20 have been canceled without prejudice and claims 21-39 have been newly added. Accordingly, after entry of this amendment, the pending claims will be claims 21-39.

The Applicants appreciate the Examiner's thorough examination of the subject application and requests reconsideration of the subject application based on the new claims and the following remarks.

#### **35 USC § 112 REJECTIONS**

The Examiner has rejected claim 1 and claims 11-14 under 35 U.S.C. § 112, first and second paragraphs; and claims 4-10 and claims 15-20 under 35 U.S.C. § 112, first paragraph. The Applicants believe that the grounds for rejection are now moot.

Besides, coefficients  $k_1$  and  $k_2$  are fully described in the specification between line 10 on page 47 and line 1 on page 48 and, moreover, are defined in claims 23 and 33. more specifically,  $k_1$  and  $k_2$  are numerical values, i.e., constants.

#### **35 USC § 102(b) REJECTIONS**

The Examiner has rejected claims 1-3, 11, and 12 under 35 USC § 102(b) as being anticipated by International Application Publication Number WO 99/18466 to Martynov ("Martynov" or the "Martynov Reference"). The Applicants believe that the

grounds for rejection are now moot. However, with respect to the new claims, the Applicants respectfully traverse these rejections.

Therefore, it is respectfully submitted that, claims 21-39 are not anticipated or made obvious by the Martynov reference and further, satisfy all of the requirements of 35 U.S.C. § 100, et seq., especially § 102(b). Accordingly, claims 21-39 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

#### 35 USC § 102(e) REJECTIONS

In the alternative, the Examiner has rejected claims 1-3, 11, and 12 under 35 USC § 102(e) as being anticipated by U.S. Patent Number 6,498,330 to Yoshida, et al. ("Yoshida" or the "Yoshida Reference"). The Applicants believe that the grounds for rejection are now moot. However, with respect to the new claims, the Applicants respectfully traverse these rejections.

Therefore, it is respectfully submitted that, claims 21-39 also are not anticipated or made obvious by the Yoshida reference and further, satisfy all of the requirements of 35 U.S.C. § 100, et seq., especially § 102(b). Accordingly, claims 21-39 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

#### 35 USC § 103(a) REJECTIONS

The Examiner has rejected claims 13 and 14 under 35 USC § 102(e) as being unpatentable over the Yoshida Reference in view of U.S. Patent Number 6,754,146 to Ma, et al. ("Ma" or the "Ma Reference"). The Applicants believe that the grounds for rejection are now moot. However, with respect to the new claims, the Applicants respectfully traverse these rejections.

### DOUBLE-PATENTING REJECTIONS

The Examiner has rejected claims 4-6, 9, and 15-20 for double-patenting in view of U.S. Patent Number 6,822,209 to Tadano, et al. ("Tadano" or the "Tadano Reference"). The Applicants believe that the grounds for rejection are now moot. However, with respect to the new claims, the Applicants respectfully traverse these rejections.

In pertinent part, the Examiner asserts that the formulae in claim 10 of the Tadano reference are not patentably distinct from the formula in independent claims 4, 5, 15, and 16 of the invention as claimed. With respect to newly filed claims 23 and 33, the Applicants respectfully disagree.

Specifically, the Tadano formulae are in the following format:

$$\text{SAES} = \text{F1} - \text{F2} \times k1 \text{ (} k1: \text{ a coefficient).}$$

However, the formulae in new claims 23 and 33 are as follows:

$$\text{SAES} = \text{F1} - \text{FES} \times k1 \text{ (} k1: \text{ a coefficient).}$$

However, as recited in the claim, FES (focus error signal) depends on **the sum of F1 + F2**, i.e., the sum of the first error signal, which detects the focus point deviation of the first region, i.e., the inner section of the light beam close to the light axis OZ; and the second focal error signal, which detects the focus point deviation of the second region, i.e., the outer section of the light beam. This sum is not the same as **simply F2** except for the unique case when F1 equals zero. As such, conceptually, the subject matter recited in claims 4-6, 9, and 15-20 is patentably distinct over Tadano.

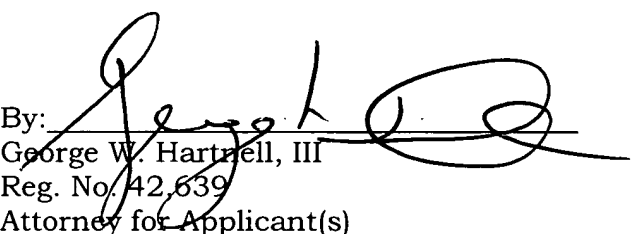
Accordingly, the Applicants respectfully request that the rejections based on double-patenting be withdrawn. Therefore, it is respectfully submitted that, claims 21-39 also are not anticipated or made obvious by the Yoshida reference and further,

satisfy all of the requirements of 35 U.S.C. § 100, et seq. Accordingly, claims 21-39 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Although it is not believed that any additional fees are needed to consider this submission, the Examiner is hereby authorized to charge our deposit account no. 04-1105 should any fee be deemed necessary.

Respectfully submitted,

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